

- (ii) one or more secondary gas-solids separator means which are fluidly connected with the gas outlet conduit of the primary cyclone.

2. (Once Amended) The apparatus of claim 1, wherein the gas inlet opening of the gas outlet conduit is located at a distance (d1) above the center of the tangentially arranged inlet opening and wherein the ratio of this distance and the diameter of the tubular housing (d2) is between about 0.2 and 3.

3. (Once Amended) The apparatus of claim 1, wherein the secondary gas-solid separator means is a cyclone separator.

4. (Once Amended) The apparatus of claim 1, wherein a stripping zone provided with means to supply stripping gas is present, so arranged that in use a fluidized bed is present, located such that part or all of the stripping gas leaving the stripping zone in an upward direction enters the lower end of the primary cyclone.

5. (Once Amended) The apparatus of claim 4, wherein a vortex stabilizer is provided at the interface between the primary cyclone and the stripping zone.

6. (Once Amended) The apparatus of claim 4, wherein the primary cyclone vessel and the stripping zone together form one tubular vessel, wherein in use, all of the stripping gas will be discharged from the stripping zone via the primary cyclone to the gas outlet conduit of the primary cyclone.

7. (Once Amended) The apparatus of claim 4, wherein the primary cyclone, secondary cyclone(s) and the stripping zone are located in a reactor vessel having a larger diameter than the primary cyclone, wherein said reactor vessel is also provided with means to supply the suspension of catalytic particles and vapor and means to discharge stripped catalyst and vapors essentially free of catalyst particles.

8. (Once Amended) The apparatus of claim 1, wherein a dipleg is present at the lower end of the tubular wall section of the primary cyclone, said dipleg is fluidly connected to the tubular wall section by means of a frusto conical wall section.

9. (Once Amended) The fluidized catalytic cracking reactor vessel comprising an apparatus according to claim 8, wherein a downstream end of a reactor riser is in fluid communication with the tangentially arranged inlet of the primary cyclone, the vessel further comprising at its lower end a stripping zone provided with means to supply a stripping medium to a dense fluidized bed of separated catalyst particles, means to discharge stripped catalyst particles from the vessel and means to discharge the hydrocarbon and stripping medium vapors from the vessel.

10. (Once Amended) The vessel of claim 9, wherein the gas outlet conduit of the primary cyclone is provided with an opening to receive stripping medium and stripped hydrocarbons.

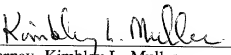
11. (Once Amended) The use of an apparatus of claim 1 to separate solid particles from a suspension of particles and gas.

12. (Once Amended) The use of claim 11, wherein the separation is part of a fluid catalytic cracking process.

13. (Once Amended) The use of claim 12, wherein a gas solids suspension is fed to the primary cyclone having a solids content between about 0.5 and 15 kg/m³.

Respectfully submitted,

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MARKED UP VERSION OF AMENDED CLAIMS

1. (Amended) [Apparatus] An apparatus for separating solid particles from a suspension of solid particles and [vapour] vapor, wherein [the] said apparatus comprises:
 - (i) a vertical primary cyclone vessel having a tubular housing comprising of a tubular wall section provided with a tangentially arranged inlet for receiving the particles and [vapour] vapor, and which tubular wall section is open at its lower end and closed at its upper end by means of a cover provided with an opening, wherein the opening is fluidly connected to a gas outlet conduit, which conduit has a gas inlet opening located at the same level as the opening in the cover;
 - (ii) one or more secondary gas-solids separator means which are fluidly connected with the gas outlet conduit of the primary cyclone.
2. (Amended) [Apparatus according to] The apparatus of claim 1, wherein the gas inlet opening of the gas outlet conduit is located at a distance (d1) above the [centre] center of the tangentially arranged inlet opening and wherein the ratio of this distance and the diameter of the tubular housing (d2) is between about 0.2 and 3.
3. (Amended) [Apparatus according to any one] The apparatus of [claims 1-2] claim 1, wherein the secondary gas-solid separator means is a cyclone separator.
4. (Amended) [Apparatus according to any one] The apparatus of [claims 1-3] claim 1, wherein a stripping zone provided with means to supply stripping gas is present, so arranged that in use a fluidized bed is present, located such that part or all of the stripping gas leaving the stripping zone in an upward direction enters the lower end of the primary cyclone.
5. (Amended) [Apparatus according to] The apparatus of claim 4, wherein a vortex [stabiliser] stabilizer is provided at the interface between the primary cyclone and the stripping zone.